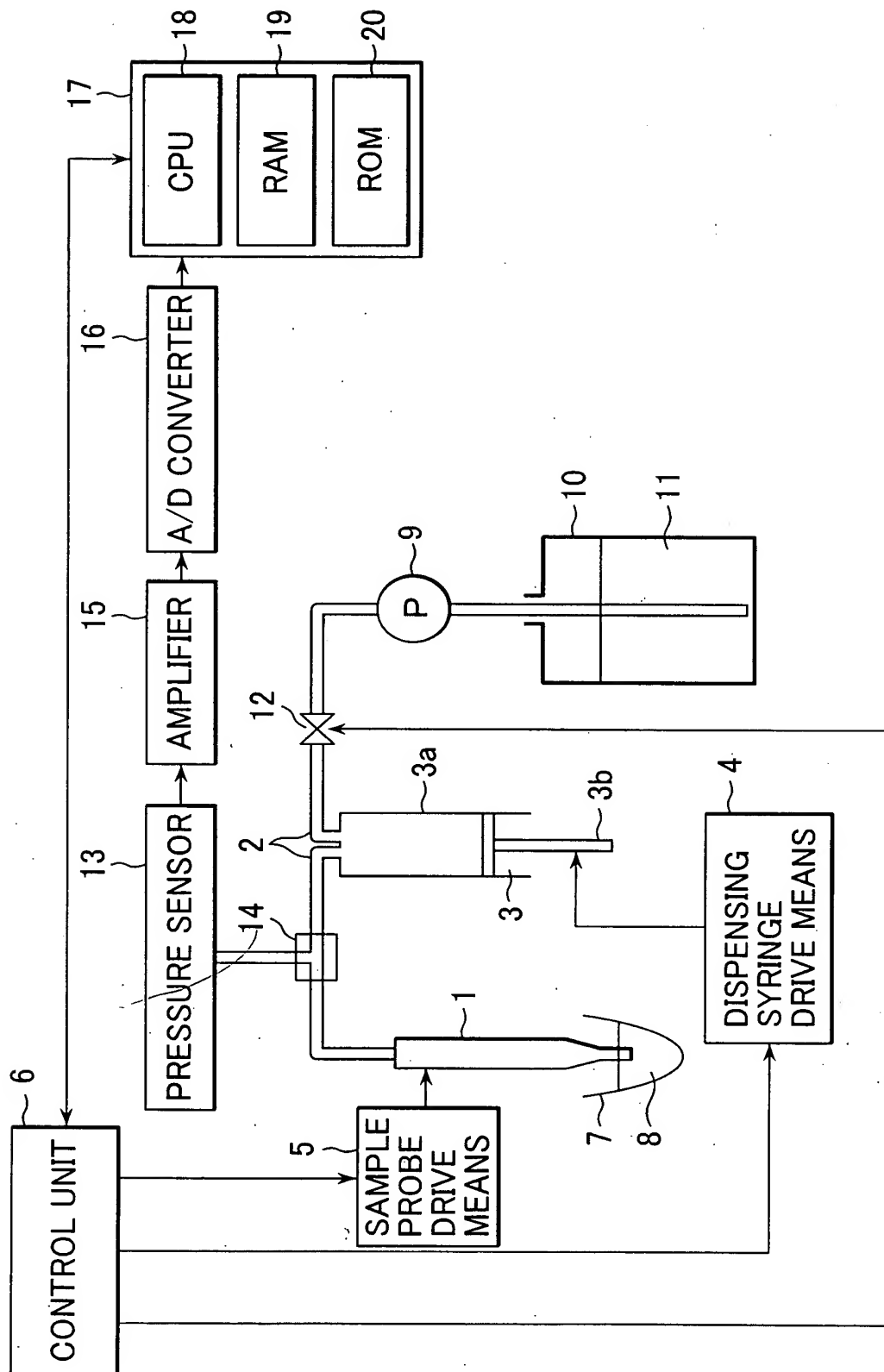


FIG.1



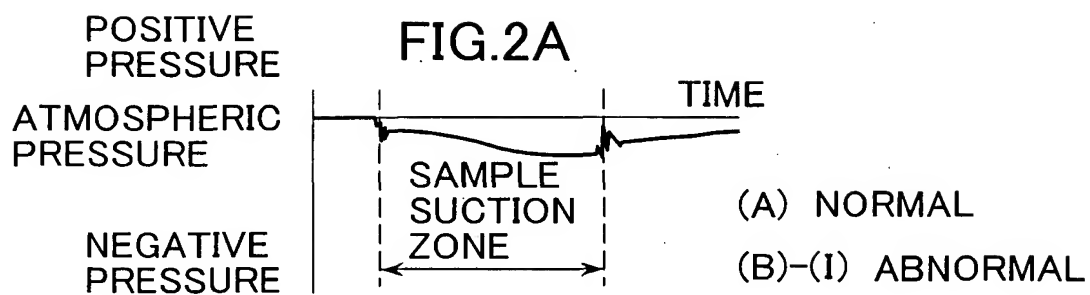


FIG. 2B

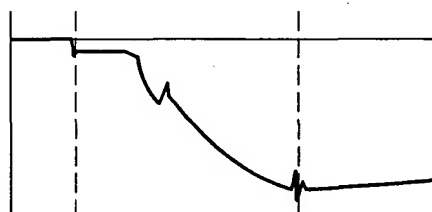


FIG. 2C

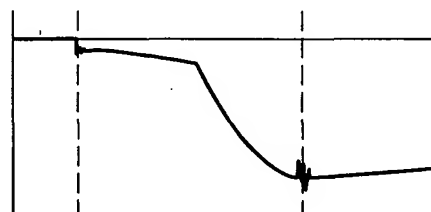


FIG. 2D

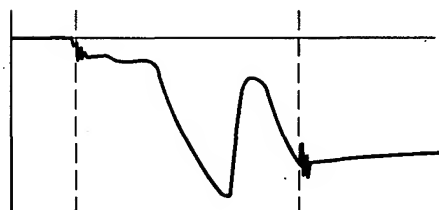


FIG. 2E

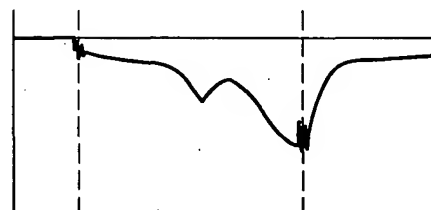


FIG. 2F

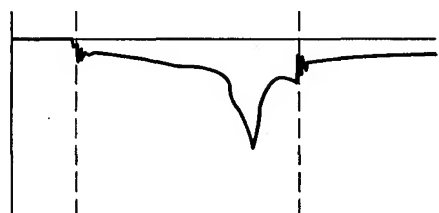


FIG. 2G

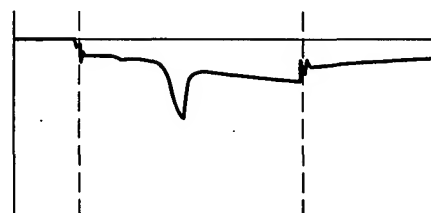


FIG. 2H

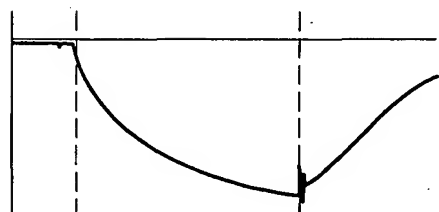


FIG. 2I

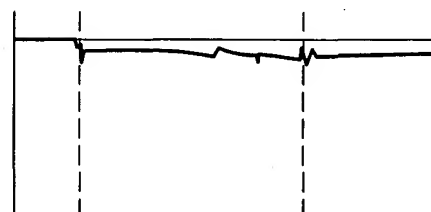


FIG.3

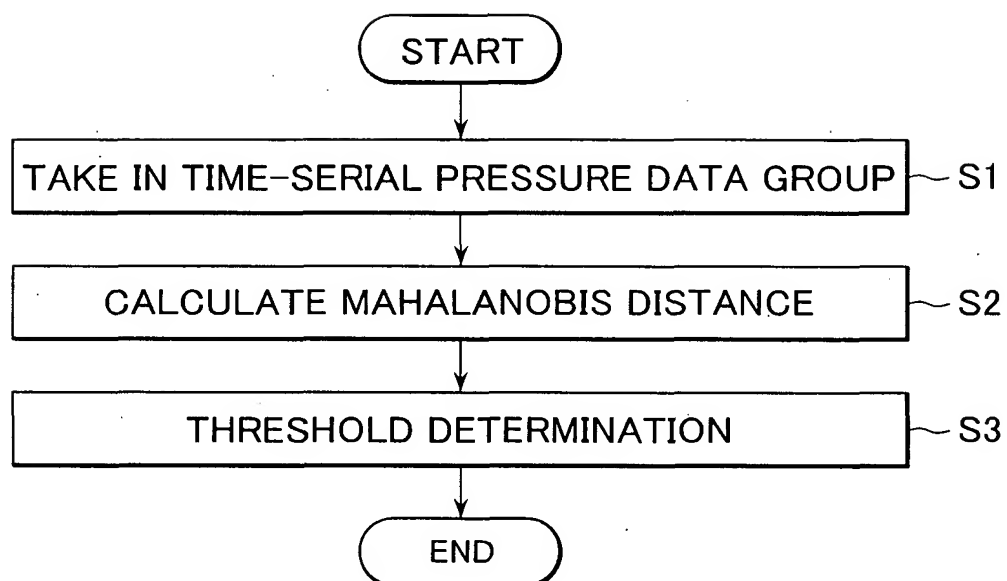


FIG.4

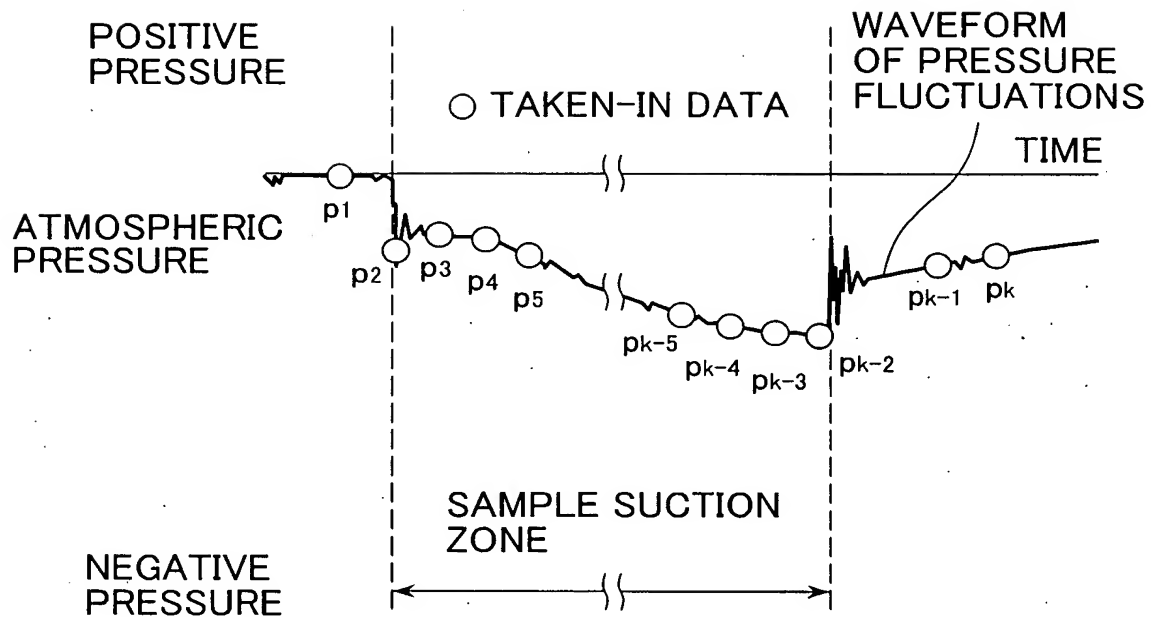


FIG.5

ITEM NO.	1	2	...	$k-1$	$k$
PRESSURE VALUE	$p_1$	$p_2$	...	$p_{k-1}$	$p_k$

FIG.6

EVENT NO \ ITEM NO	1	2	...	k-1	k
1	p11	p12	...	p1k-1	p1k
2	p21	p22	...	p2k-1	p2k
⋮	...	...	...	...	...
n-1	p <sub>n-1</sub> 1	p <sub>n-1</sub> 2	...	p <sub>n-1</sub> k-1	p <sub>n-1</sub> k
n	p <sub>n</sub> 1	p <sub>n</sub> 2	...	p <sub>n</sub> k-1	p <sub>n</sub> k

FIG.7

PRESSURE WAVEFORM	MAHALANOBIS DISTANCE $D_2$
(a) NORMAL	1
(b)	1,185
(c)	2,442
(d)	4,176
(e)	814
(f)	1,225
(g)	179
(h)	603
(i)	36

FIG.8

AVERAGE OF D <sub>2</sub> IN NORMAL DISPENSING (n=288)	1.00
STANDARD DEVIATION OF D <sub>2</sub> IN NORMAL DISPENSING (n=288)	0.56

FIG.9A

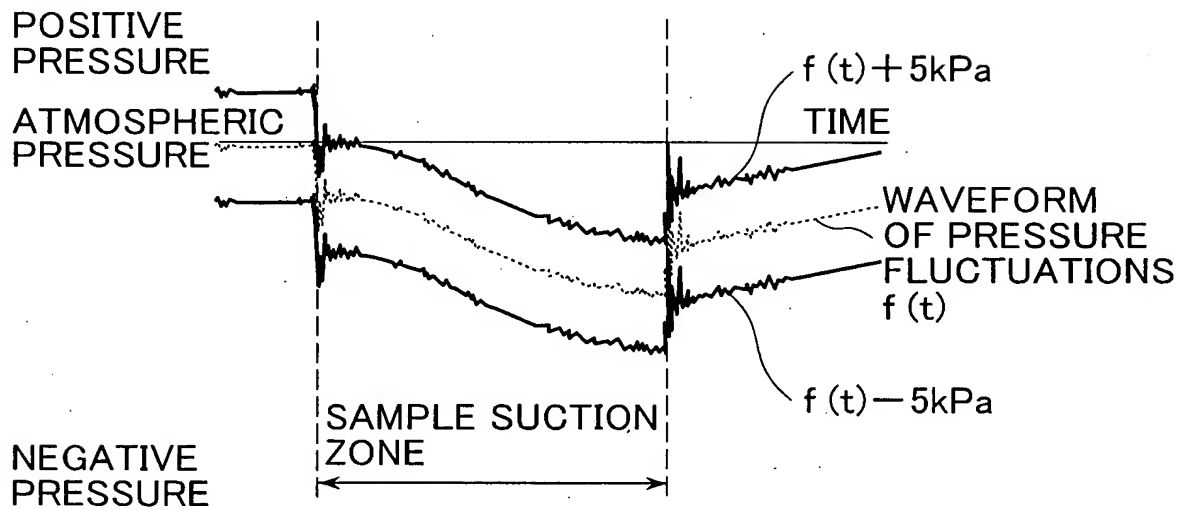


FIG.9B

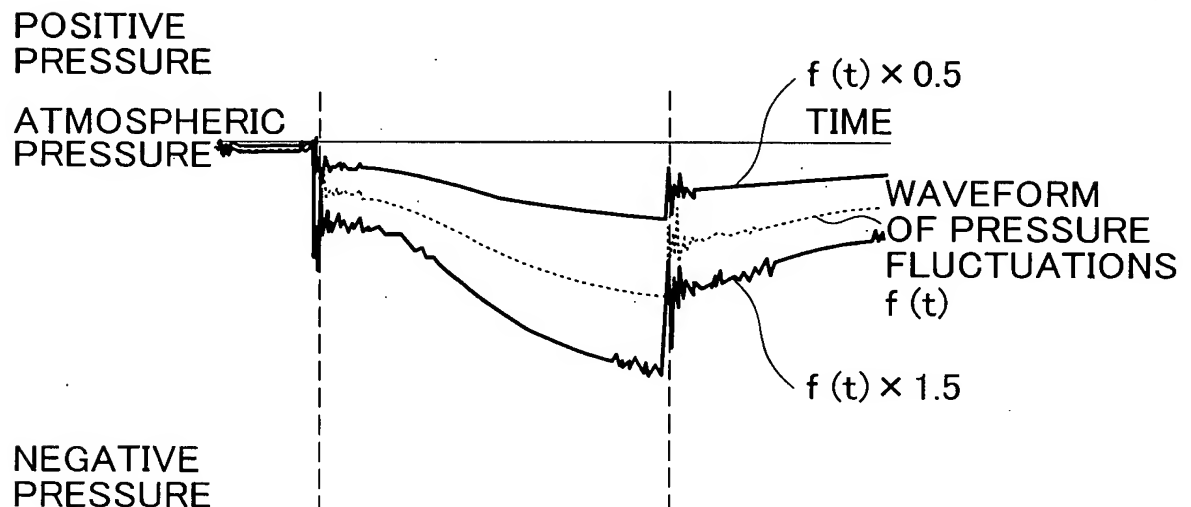


FIG.10

PRESSURE WAVEFORM	-5kPa	+5kPa	× 0.5	× 1.5
(a) NORMAL	7	6	7	6
(b)	1,158	1,225	227	2,902
(c)	2,510	2,387	551	5,699
(d)	4,141	4,224	1,031	9,463
(e)	856	785	204	1,858
(f)	1,183	1,280	286	2,844
(g)	187	184	56	397
(h)	614	604	164	1,343
(i)	53	32	24	64

FIG.11

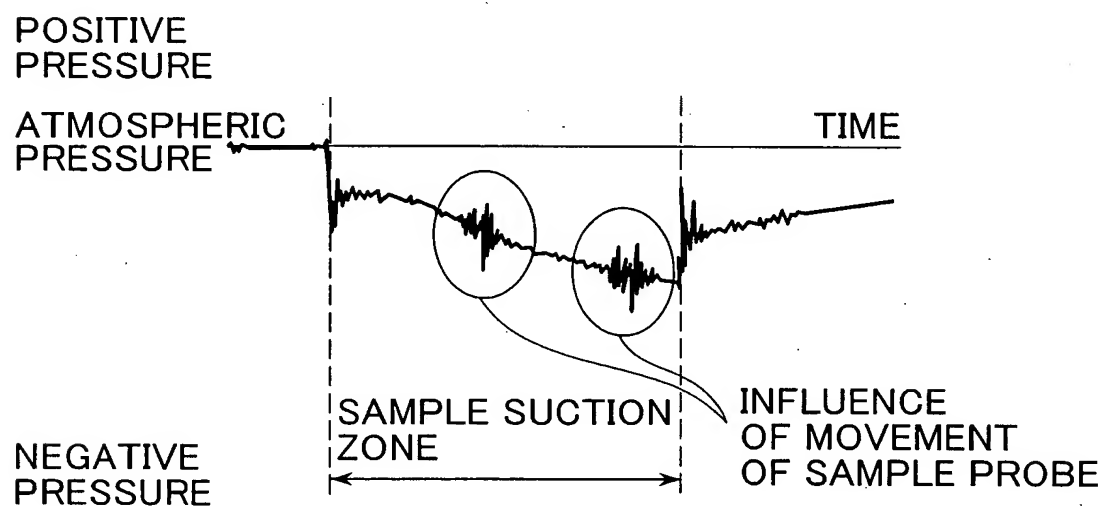




FIG.12

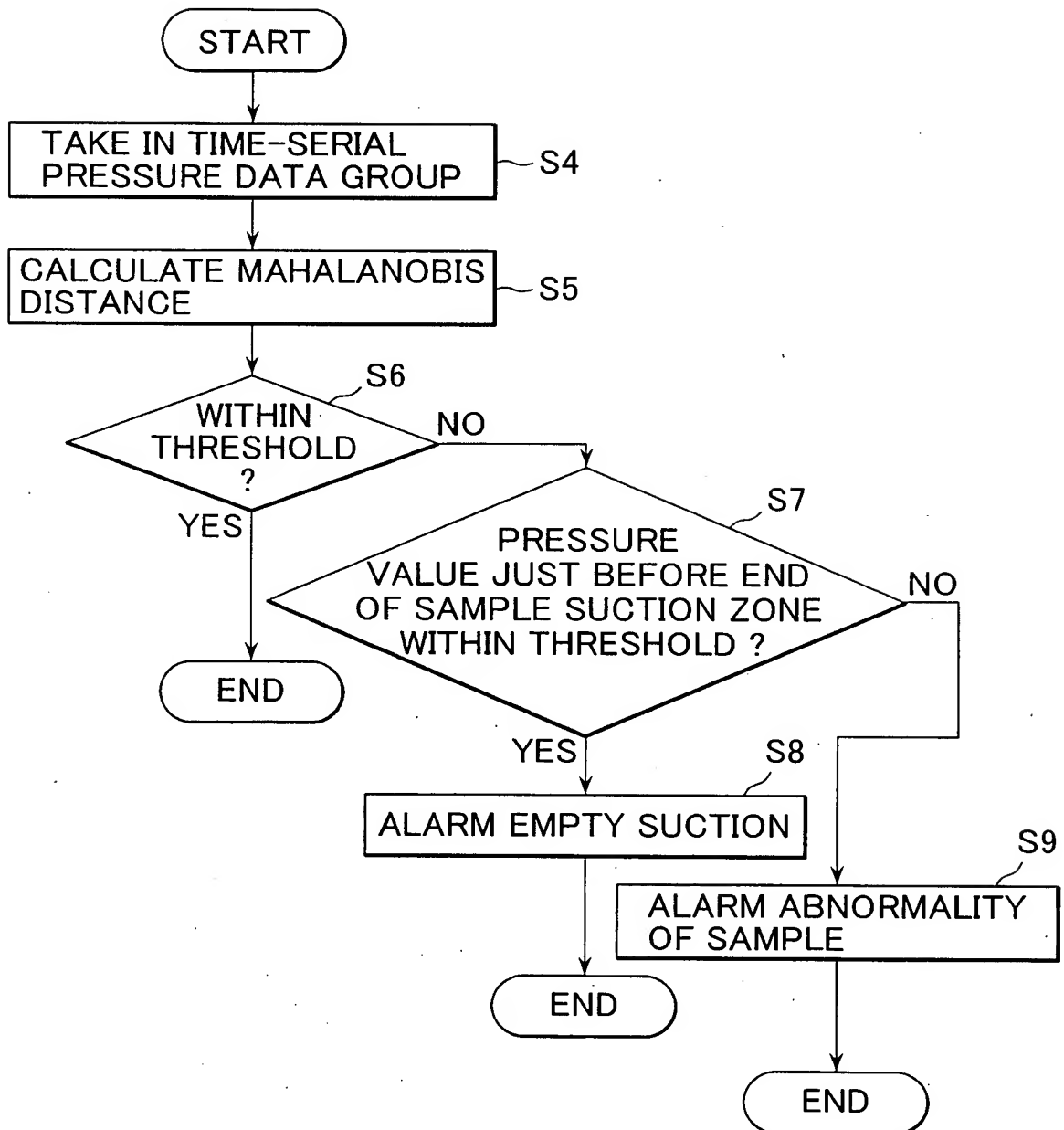


FIG.13

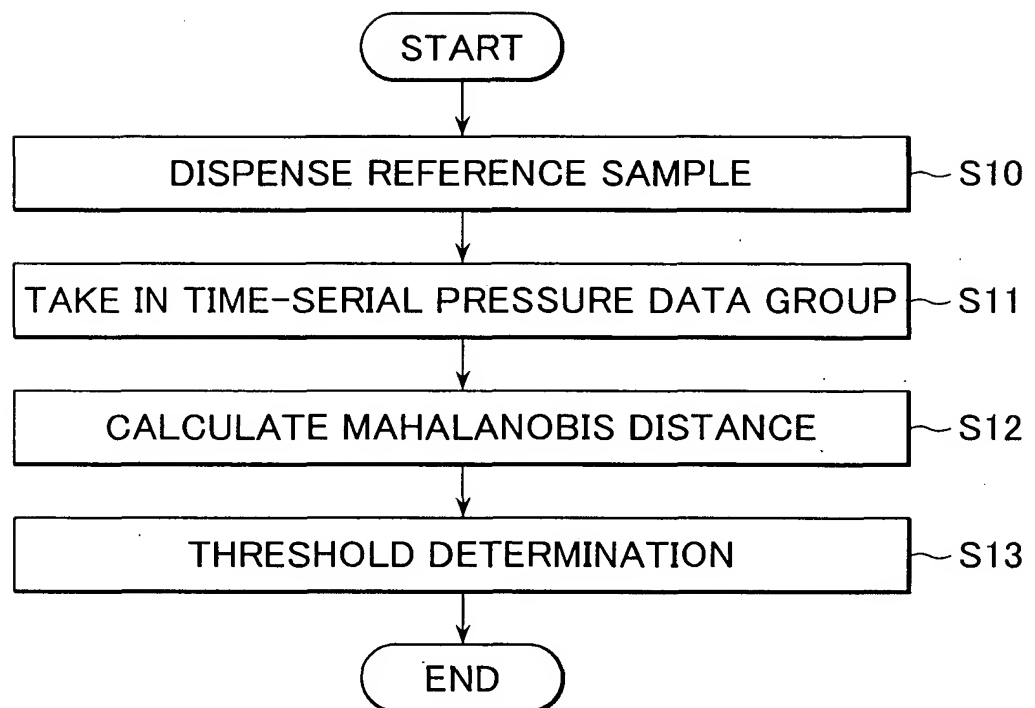


FIG.14

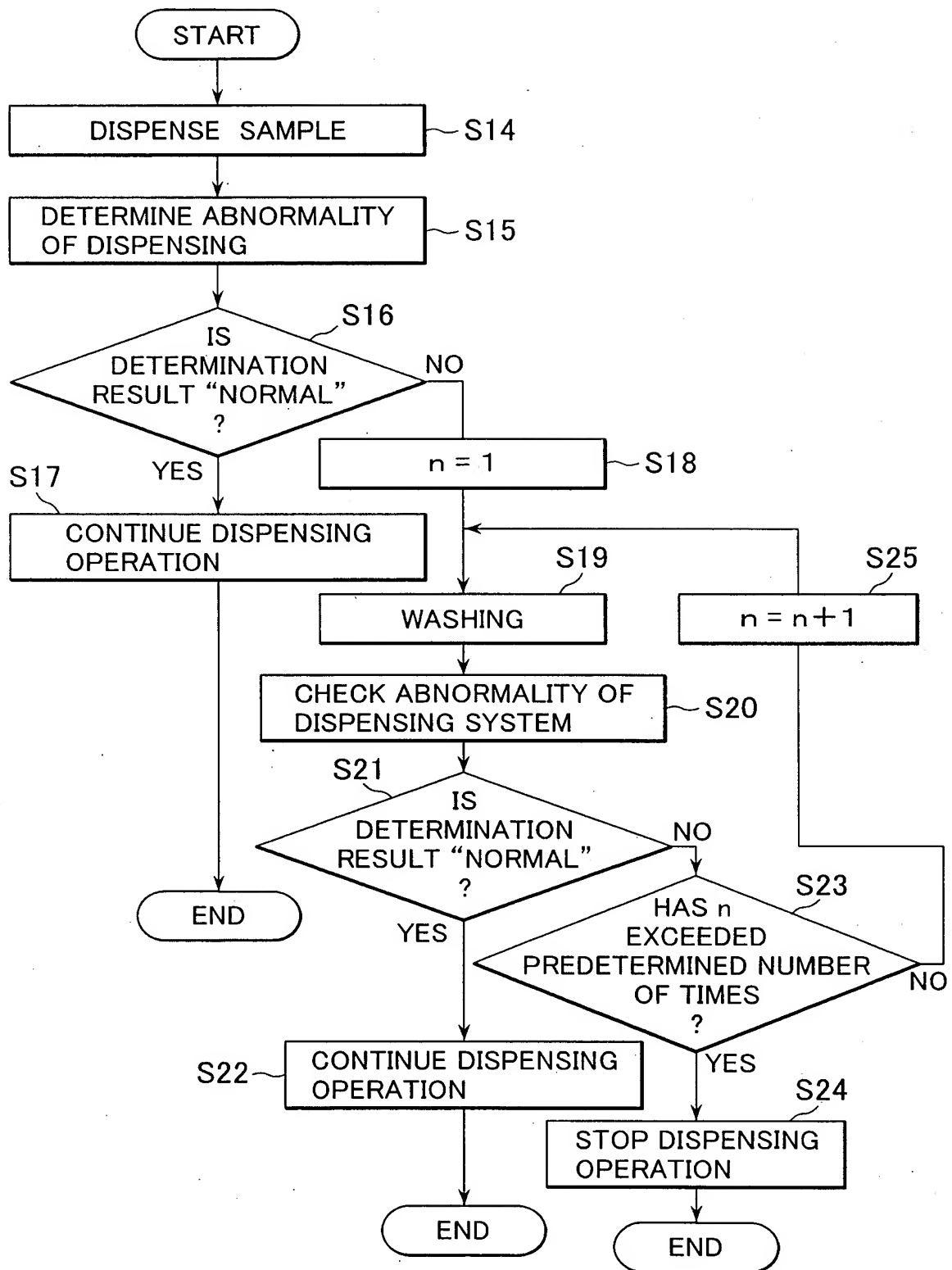


FIG.15

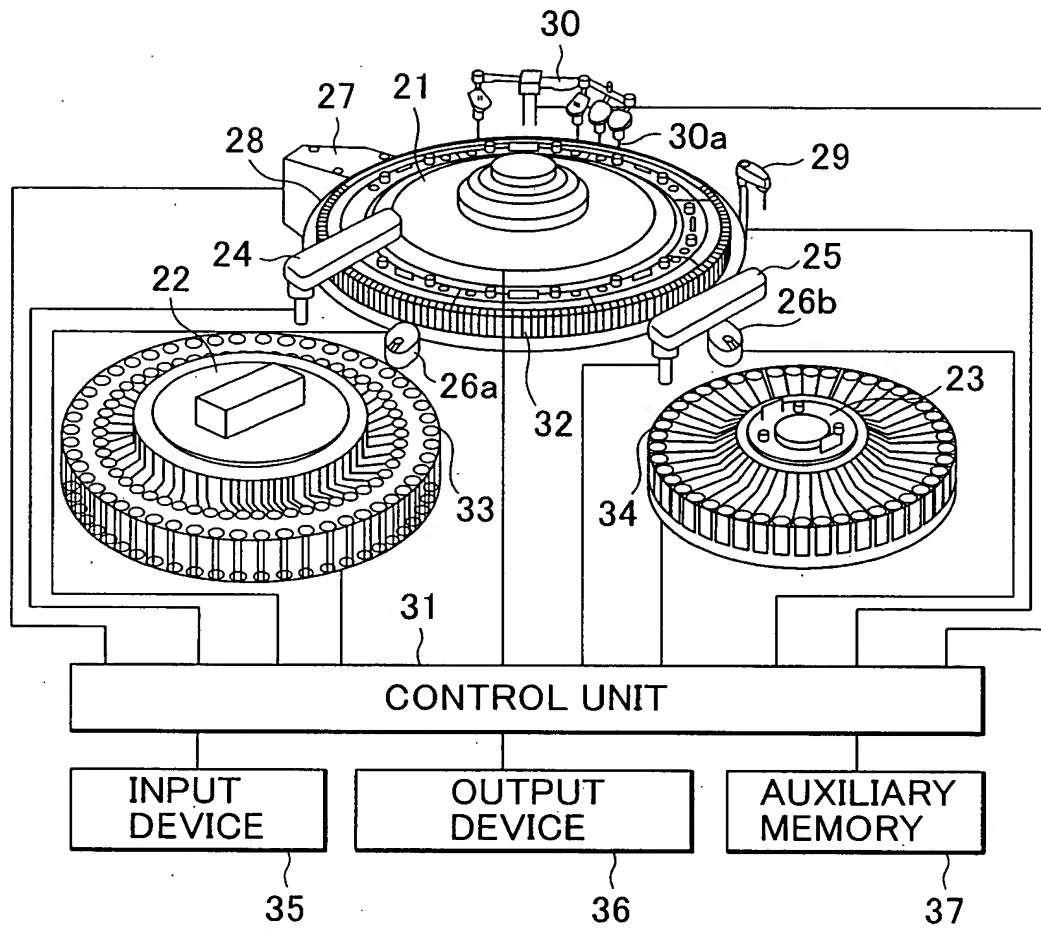


FIG.16

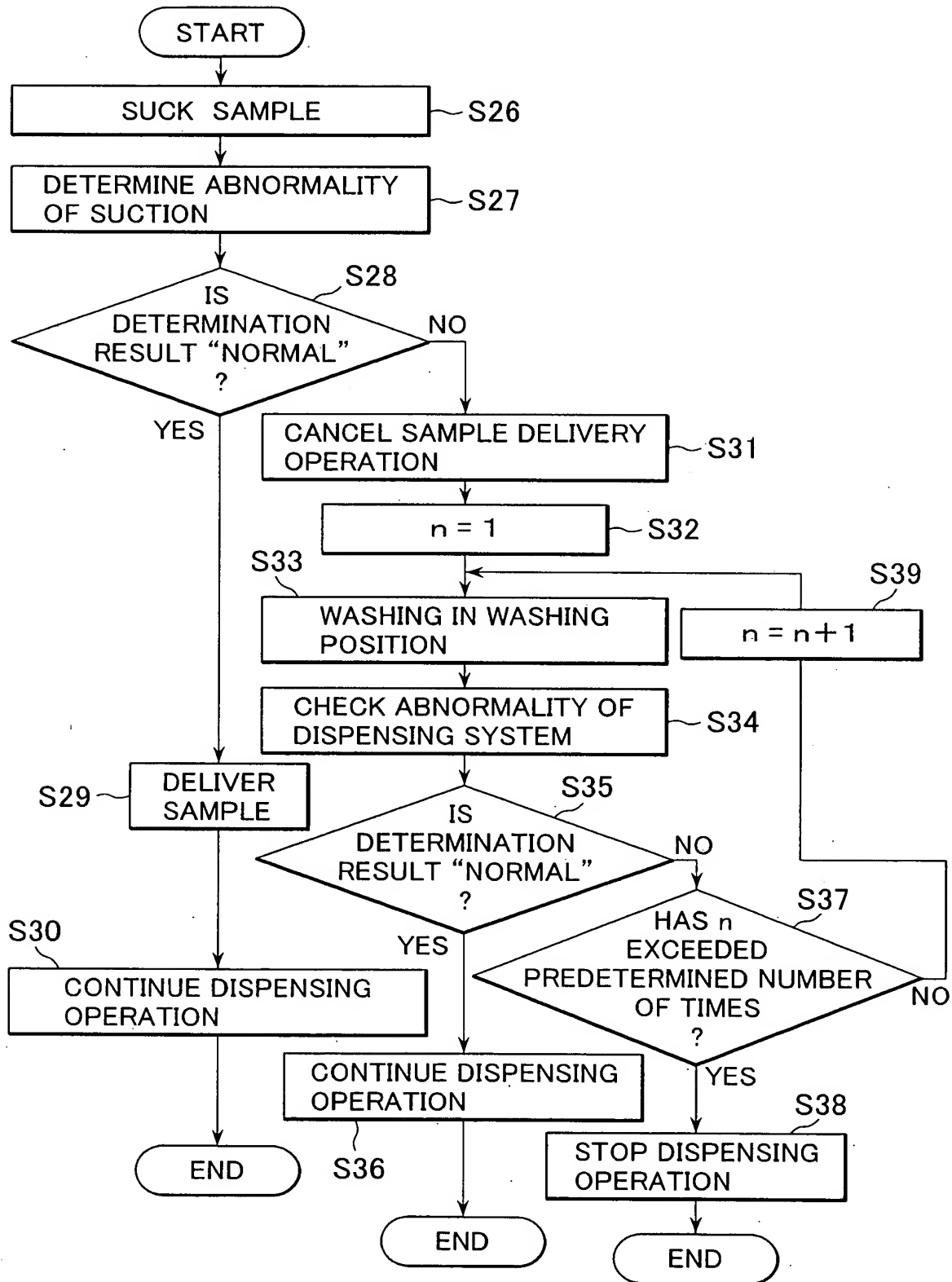


FIG.17

